

ABSTRACT

System for carrying out time-division multiplex transmission and Communication system including a time-division multiplexing access 5 system

Four channel signals 3a to 3d are input into a transmitter unit 1. The channel signal 3a includes ATM cell-base flow, and is input into a channel identifier adding circuit 4, in which a HEC byte in PLOAM cell is inverted. As a result, the channel signal 3a is turned into a reference channel signal 3x. The reference channel signal 3x as well as the channel signals 3b to 3d is input into a multiplexing circuit 5, in which the reference channel signal 3x is time-division multiplexed in every bit. The thus multiplexed reference channel signal is transmitted as a time-division multiplexed transmission signal 6 to a channel identifying circuit 8 in a receiver unit 7, and then, is separated into channels. The channel identifying circuit 8 detects the reference channel signal among the four channel signals, based on the fact that HEC byte in PLOAM cell is inverted, and identifies other channel signals, based on a difference in a phase between the reference channel signal 3x and other channel signals. The thus identified channel signals are transmitted from the channel identifying circuit 8.

The diagrams show a single cell on the left, a cluster of cells in the middle, and a more complex, multi-cellular organism on the right.

[illegible]